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Master Plan

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Beavertail Hill Recreational Area

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The Recreation and Parks Division
Montana Fish and Game Department

Menasco — McGuinn Associates

Helena, Montana

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MASTER PLAN

Beavertail Hill Recreational Area
Missoula County, Montana

for
Recreation and Parks Division
Montana Fish and Game Department

April, 1971

by
Menasco-McGuinn Associates
Helena, Montana

A. INTRODUCTION

The Beavertail Hill Recreation Area is located approximately 25 miles east of Missoula on Interstate 90. The facility is planned for over-night accommodations for all types of recreational vehicles, fishing access to the Clark Fork River, extended camping, and day use. Independent surveys conducted by this firm indicate that 20 percent of the vehicles traveling Interstate 90 in the years 1969 and 1970 during the summer months were recreational in nature.

At the present time, the Beavertail Hill Recreation Area will be the only totally developed facility of its kind between Butte and Missoula. Due to its strategic geographic location, the natural beauty of the site, and the dire need of such a facility between Missoula and Butte, it is recommended the ultimate development of the area would be accomplished by the year 1974.

The location of this facility is approximately one mile south of the Beavertail Hill interchange. The site encompasses some 60 acres with more than adequate tree cover and some open space areas. The trees are primarily Cottonwood, but some mature Ponderosa Pine exist and an unusual number of small pines are starting to develop in the area.

The area is bordered on the east by the Clark Fork River, forming one of the property boundaries. The southerly limits of the property, on which a quarter corner is located, lies approximately 200 feet south of loop road A.

The over-all plan is to provide pull-through trailer spaces, back-in camper spaces and diagonal parking at the day-use area. As indicated on the Master Plan, an over-flow parking area will

be provided on the northwest corner of the property adjacent to the main entrance.

There is no intent to up-grade the county road from the Beavertail Hill interchange to the recreational area as a part of this project. The county road has a present travel way width of ±12 feet and shoulder areas of approximately 3 feet. Due to the limited traffic on this road and with the curtailed speed limit, the facility should be adequate to handle those recreational vehicles utilizing the over-night facilities. It should be pointed out, however, that before the ultimate development of the Beavertail Hill area is completed, some up-grading of the county road should be undertaken.

There is a potential hazard to the access of the area since it is necessary to cross the mainline of both the Milwaukee and Burlington Northern Railroads approximately 500 feet south of the Beavertail Hill interchange. These are at-grade crossings, and at present do not have lighted signals. There is adequate sight distance both east and west as one approaches the tracks, but it is our strong recommendation that lighted signals be installed at the earliest possible time.

Approximately two miles west of the Beavertail Hill interchange, the Montana Highway Commission is developing a rest area. It is our belief that due to the limited number of over-night accommodations between Missoula and Butte, that an information sign be placed within the rest area to direct the motorist to the Beavertail Hill recreation facility. It would also be advisable to provide adequate signs along the interstate to direct the motorist to the area. Due to the high speeds of the people using Interstate

90, advance signing should be placed at least two miles east and west of the interchange. After the development of the facility has been completed, it would be our recommendation that a photograph be placed on a state map for the year 1972.

Every effort has been made on the road layouts of the area to avoid the cutting of any of the timber within the site. Due to the spacing of the large trees, we feel that this can be accomplished throughout the area. The site will require minimal clearing of brush.

The Montana Fish and Game Department did subsurface exploratory work in the area adjacent the administrative site and it would indicate that the ground water level is approximately six feet below existing grade. In reviewing the high water conditions of the Clark Fork River, a minimum amount of flooding has occurred in recent years. It is not recommended that any flood control devices be developed to protect the area.

B. GRADING AND DRAINAGE

The over-all area will be sheet drained. As required, small vee ditches adjacent to the access roads will be constructed. At the present time, only two pipe culverts are anticipated; one is located in the loop B area and the other is where the main access road joins the county road at the entrance.

The only grading that will be required will be that grading necessary to construct the loop access roads, the administrative site, the trailer pump-out station, and the parking area servicing picnic grounds. This grading will constitute removal of the vegetation within the construction limits of the areas mentioned. The

only significant cut will be that area in the administrative site and the trailer pump-out station where these facilities intersect an old railroad roadbed. In this particular area, a cut of approximately five feet will be necessary through the width of the old roadbed. The backslope cut in the area adjacent to the pump-out station will be laid back at 20:1. The material from this excavation will be placed in the old borrows in the administrative and trailer pump-out station sites.

C. ACCESS ROADS

The access into the area will be two directional. Two directional traffic will be maintained to the entrance of the facility and down to the day-use area for picnic grounds. A cul-de-sac will be provided at the end of this access road which will permit the day-use traffic access back to the main entrance. Another segment of two directional access will be maintained to the intersection of loop road A and trailer loop road F. At that point, the balance of the road system will be for one-way traffic only.

The width of the two directional traffic roadway will be 24 feet including shoulders. The width of the one-way travel network will be 14 feet including shoulders. The roadway will be gravel surface to a depth of four inches. It is also recommended that an oil application be placed on the surfacing to afford the necessary dust control of the area. The minimum radii used throughout the design has been 25 feet.

At the administrative site, a 12-foot gravel drive and parking area will be provided. An area 60 feet long by 12 feet wide has been provided for the parking of a mobile home, but it is not

intended that any permanent foundation be constructed for the facility.

The parking area for the day-use area will be of the same construction as the general roadway. It is recommended, however, that bumper logs be installed to confine the vehicles within the designated area.

D. LANDSCAPING

The area at the entrance, including the administrative site, will require limited seeding since this area falls within the old railroad roadbed. It would be desirable that some of the vegetation removed during the construction of the loop access roads be transplanted to this construction area.

E. WATER DISTRIBUTION

It is contemplated that the ultimate development of this facility will be supplied with potable water from two six-inch cased wells. The water distribution network will be comprised of plastic pipe, mains, and laterals of various and adequate sizes. All risers for water service will be 1/2-inch galvanized with spring actuated valves held in place by 4-inch support posts rising 34 inches above grade. Since the facility will be closed during the winter months, the water line will be placed at a depth of 18 to 24 inches below grade and graded to drain. Risers will be placed a minimum of 15 feet from the edge of travel way. All pumps and receiver tanks will be located in above-ground pump houses. The minimum pressure of 20 psi will be required at all riser outlets. A riser will be proviced at the orientation sign for camper and

trailer water supply tanks. Wash-down water will be provided at the trailer pump-out station and an adequate back-flow valve placed in the system to insure that no contamination gains access into the main distribution system. Montana Fish and Game Department standard warning signs will also be provided at the wash-down water supply.

During the course of this study, we did not endeavor to drill a test well at the site. It is anticipated adequate water can be obtained within 60 feet of the surface and should be adequate and potable.

F. SANITATION FACILITIES

A common septic tank system will be provided for the administrative site and the trailer pump-out station, with the septic tank located at the trailer pump-out station. All other facilities will be standard double-unit latrines as presently being utilized by the Montana Fish and Game Department, with the possibility of adopting small flush-type toilets as located on the plan. All discharge waters from the camper vehicles will be gathered in a receptacle provided by each camper and will be disposed of by the camper at the trailer pump-out station. No waste will be permitted to be spilled within the recreational area. Solid waste disposal receptacles will be placed throughout the site and will be collected regularly. Waste material will be disposed of in a legal remote land fill.

Modern comfort stations with full rest room facilities and showers shall be considered in the last phase of development of the recreational area.

G. TRAILER AND CAMPER PARKING SITES

Trailer and camper parking sites will be located throughout the site with a minimum spacing of 100 feet between units. A limited number of pull-through trailer spaces will be developed and will accommodate trailer units up to 33 feet in length. The accommodations for the pick-up campers will be set on a diagonal pattern and arranged to permit the vehicle to back into the parking site.

Each site will be provided with a standard Fish and Game Department picnic table and fire pit, or stand-up grill. It is estimated that the ultimate development will accommodate 67 units. During periods of peak usage, an over-flow parking area has been provided. There will be no rest rooms or water facilities to this area on this project. Predicated upon usage, it may be necessary to provide these accommodations at a later date.

H. DAY-USE AREA

The picnic ground and day-use area has been provided at the northeasterly portion of the recreational area. It is recommended that 20 picnic tables and fire pits, or stand-up grills, be provided for this area. Water and sanitary facilities are to be provided for this area.

Since the over-all concept of the recreational area is for over-night usage, it is expected that the day-use area would not be constructed during the first phase of the construction.

I. ELECTRICAL SERVICE

Power to the site can be obtained from the BRTC Company,

Hamilton, Montana, Pole No. 40-6 LP-P, located approximately 600 feet in a southwesterly direction of the administrative site and adjacent to the county road. It is recommended that the power be brought to the property boundary by over-head service and enter the site at the designed location in appropriate under-ground buried cable.

It is recommended that exterior lighting be provided at the trailer pump-out station, at the sign orientation parking area, and that an entrance light be provided at the county road. It is also desirable that electrical service be provided to each rest room area.

On the northeast corner of the property, an over-head 115 KVA power line crosses the Clark Fork River approximately 100 feet inside the property line. It is felt that this over-head transmission line will not interfere with any future development of the recreational area. Due to the physical location of the line, existing Cottonwood trees will provide adequate screening from the over-night camp areas. It is not recommended that the line be considered for relocation.

J. COMMUNICATION

It is recommended that telephone service be provided at the administrative site and a pay telephone be located adjacent to the orientation sign.

K. FIRE PROTECTION

Due to the heavy vegetation in the area, it is recommended that fire protection equipment be maintained at the administrative

site to combat any fires started within the recreational area.

L. EXISTING BEAVER PONDS

As indicated on the Master Plan, on the southwesterly corner of the property, a series of beaver ponds have been formed. Investigation indicates that these ponds are spring fed. Field observation did not indicate that any extensive development should be made of the ponds at this time. In the future, however, as funds permit, it might be possible to remove the organic and silt formations from the bottom of the ponds and transform their usage to children's wading areas. Under the present concept, it is intended to provide a foot-path to the ponds from the over-night camping areas.

M. FUTURE DEVELOPMENT

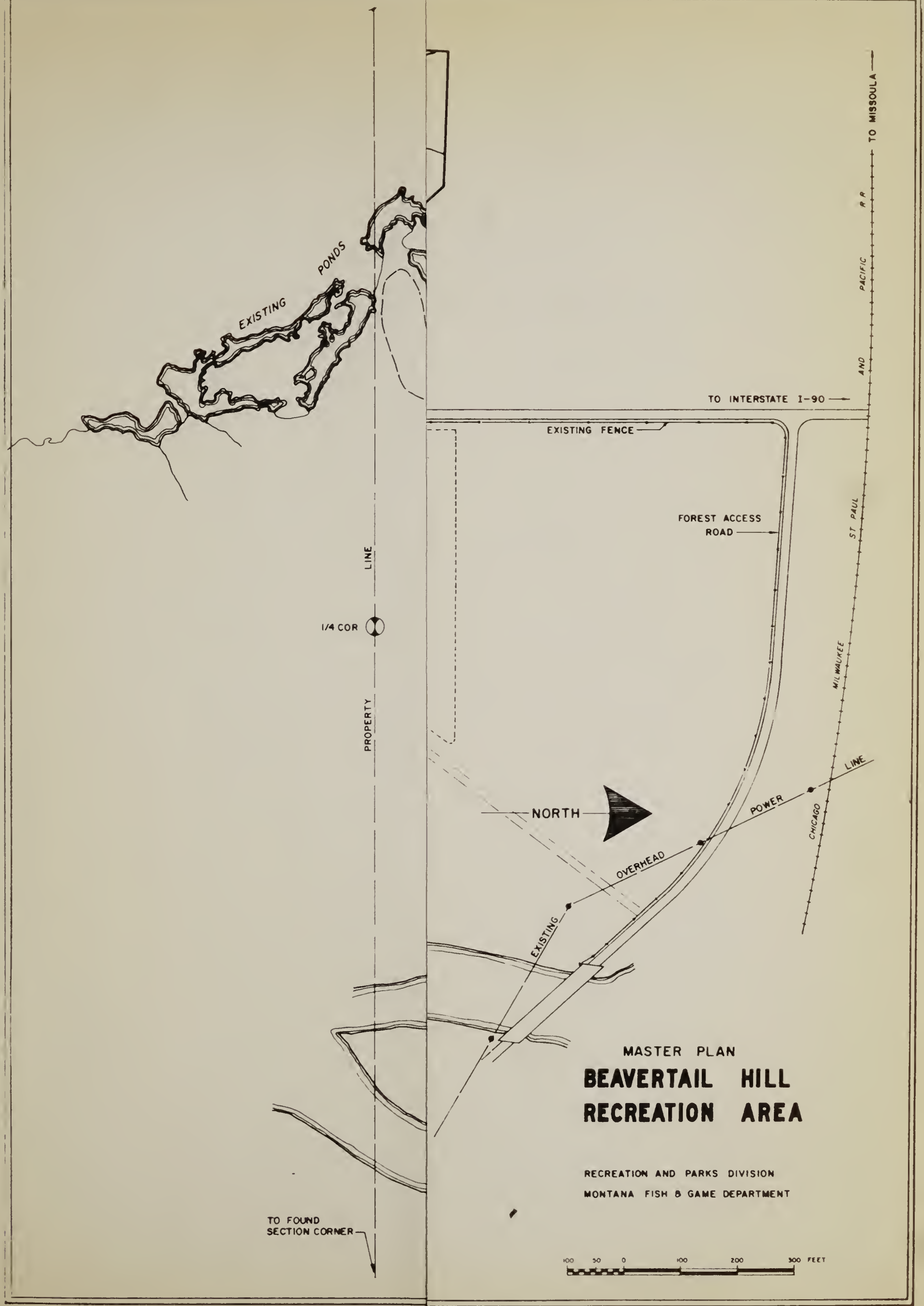
The northwesterly corner of the property has been utilized in the past years as an agricultural area. Consequently, the present area does not have any timber growth. It does have a significant stand of heavy wild hay vegetation. A portion of the area has been set aside as an over-flow parking and camping site. Upon further development of the over-all recreational water facilities, limited irrigation water could be provided for the area. As a result, it would be possible to plant numerous young trees in a predetermined pattern; thus affording a maximum development of the recreational area.

N. SUMMARY

It is our recommendation that the over-all construction of

this facility transpire in a three-phase development beginning construction season 1971 and being totally completed by 1974. Our estimated cost for the over-all development of this facility is included in a separate appendix and is predicated upon 1970 prices.

It is our belief this site is worthy of a maximum development and should provide many hours of enjoyment to those people utilizing it. The facility will be a credit to the State of Montana and the Fish and Game Department. The need for the facility can not be overly emphasized and with the preliminary information gained through other traffic studies, the facility does have a significant importance for the development of tourism in the State of Montana.

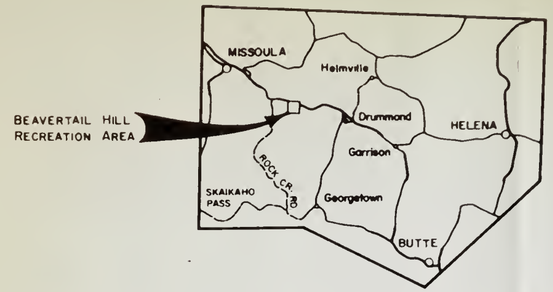


MASTER PLAN

BEAVERTAIL HILL RECREATION AREA

RECREATION AND PARKS DIVISION

MONTANA FISH & GAME DEPARTMENT



SITE AND VICINITY MAP

AVAILABLE POWER- TELEPHONE

EXISTING FENCE

EXISTING SPRINGS

EXISTING PONDS

FOOT PATH

CATTLE GUARD

COUNTY RD.

TO INTERSTATE I-90

TO MISSOULA

PACIFIC AND R R

ST PAUL

EXISTING FENCE

ADMINISTRATIVE SITE

7 UNITS

TRAILER PUMP-OUT

OVERFLOW PARKING - CAMPING

FOREST ACCESS ROAD

OVER-NIGHT PARKING

EXISTING ABANDONED R. R. BED

1/4 COR

PROPERTY LINE

16 UNITS

12 UNITS

12 UNITS

8 UNITS

12 UNITS

DAY AREA

NORTH

POWER LINE

OVERHEAD

EXISTING

MILWAUKEE CHICAGO

CLARK FORK RIVER

TO FOUND SECTION CORNER

MASTER PLAN

BEAVERTAIL HILL RECREATION AREA

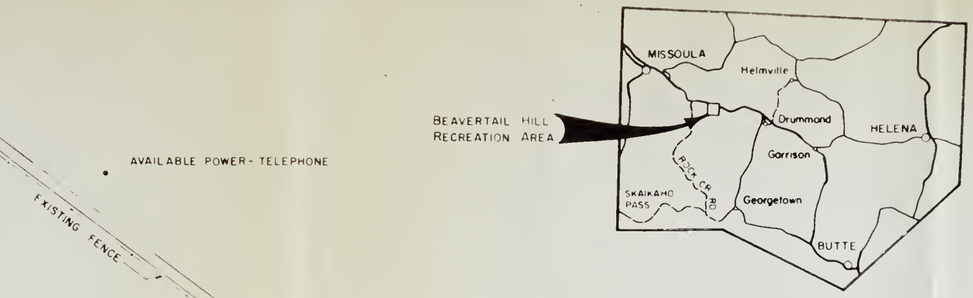
RECREATION AND PARKS DIVISION

MONTANA FISH & GAME DEPARTMENT

□ FLUSH TYPE LATRINES

⊡ DOUBLE UNIT LATRINES

100 50 0 100 200 300 FEET



SITE AND VICINITY MAP

AVAILABLE POWER - TELEPHONE

EXISTING FENCE

EXISTING SPRINGS

EXISTING PONDS

FOOT PATH

CATTLE GUARD

COUNTY RD

TO INTERSTATE I-90

TO MISSOULA

ADMINISTRATIVE SITE

7 UNITS

TRAILER PUMP-OUT

OVERFLOW PARKING - CAMPING

FOREST ACCESS ROAD

OVER - NIGHT PARKING

EXISTING ABANDONED R R BED

1/4 COR

PROPERTY LINE

16 UNITS

12 UNITS

12 UNITS

8 UNITS

12 UNITS

DAY AREA

NORTH

POWER LINE

OVERHEAD

EXISTING

CLARK FORK RIVER

— FLUSH TYPE LATRINES

(:) DOUBLE UNIT LATRINES

—UE— UNDERGROUND ELECTRICAL SYSTEM

—W— WATER LINE

UTILITY PLAN

BEAVERTAIL HILL RECREATION AREA

RECREATION AND PARKS DIVISION

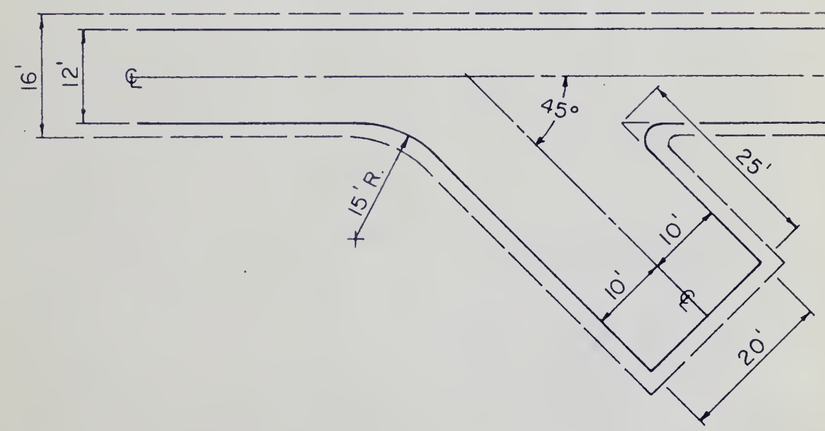
MONTANA FISH & GAME DEPARTMENT

0 50 100 500 FEET

TYPICAL CAMPSITES

SCALE : 1" = 20'

BACK-IN PARKING UNIT



ISLAND PARKING UNIT